

EXHIBIT 4—METRICS SUMMARY  
ENERGY, ENVIRONMENTAL, AND ECONOMIC SAVINGS  
NICE<sup>3</sup>

The installed unit (based on annual throughput, e.g., paper mill producing 200 tons/day) for the *proposed* technology is \_\_\_\_\_.

The installed unit for the *comparable competing* technology is \_\_\_\_\_.

Energy Savings

The energy consumption for the *proposed* unit in Btu/yr/unit is \_\_\_\_\_.

**Provide a discussion with assumptions and references for the derivation of your values.**  
(Refer to subsequent table for energy conversion)

The energy consumption for the *comparable competing* unit in Btu/yr/unit is \_\_\_\_\_.

**Provide a discussion with assumptions and references for the derivation of your values.**  
(Refer to subsequent table for energy conversion factors)

Environmental Savings

Identify wastes other than power generation emissions for the *proposed* technology in tons/yr/unit using the *proposed* unit described above:

Waste 1 \_\_\_\_\_  
Waste 2 \_\_\_\_\_  
Waste 3 \_\_\_\_\_

Identify wastes other than power generation emissions for the *comparable competing* technology in tons/yr/unit using the *comparable competing* technology unit described above:

Waste 1 \_\_\_\_\_  
Waste 2 \_\_\_\_\_  
Waste 3 \_\_\_\_\_

**Provide a discussion including assumptions to allow the technical reviewers to understand the derivation of the stated values.**

## METRICS SUMMARY (CONTINUED)

### Economic Savings

Provide the economic savings for the proposed technology versus the comparable competing technology.

Define the unit cost for the proposed technology

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Define the unit cost for the comparable competing technology

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**Provide a discussion including assumptions to allow the technical reviewers to understand the derivation of the stated values.**

**METRICS SUMMARY (CONTINUED)**  
**FUEL OR ENERGY CONVERSION FACTORS**

<b><u>Fuel Source</u></b>	<b><u>BTU/Barrel</u></b>	<b><u>BTU/Gallon</u></b>	<b><u>BTU/Pound</u></b>	<b><u>BTU/Cubic Foot</u></b>
Crude Oil	$6 \times 10^6$	$142 \times 10^3$	$18.6 \times 10^3$	$1 \times 10^6$
Fuel Oil – 6	$6.2 \times 10^6$	$150 \times 10^3$	$17.8 \times 10^3$	$1.1 \times 10^6$
Fuel Oil – 2	$6 \times 10^6$	$140 \times 10^3$	$18.6 \times 10^3$	$1 \times 10^6$
Gasoline	$5.2 \times 10^6$	$126 \times 10^3$	$18.9 \times 10^3$	$940 \times 10^3$
Propane – L	$3.8 \times 10^6$	$92 \times 10^3$	$19.9 \times 10^3$	$690 \times 10^3$
Wood	-----	-----	$6.5 \times 10^3$	$148 \times 10^3$
Natural Gas	$87 \times 10^6$	$2 \times 10^3$	$21 \times 10^3$	$1 \times 10^3$
Methane	$87 \times 10^6$	$2 \times 10^3$	$21 \times 10^3$	$1 \times 10^3$
Methanol	$2.9 \times 10^6$	$69 \times 10^3$	$9.6 \times 10^3$	$517 \times 10^3$
Ethane	-----	-----	$20 \times 10^3$	$1.8 \times 10^3$
Ethanol	$3.7 \times 10^6$	$87 \times 10^3$	$12 \times 10^3$	$652 \times 10^3$
Hydrogen	-----	-----	$51 \times 10^3$	270
CO	-----	-----	$4.3 \times 10^3$	316
Coal - Bit.	-----	-----	$12.6 \times 10^3$	$800 \times 10^3$
Coal - Lig.	-----	-----	$8.6 \times 10^3$	$541 \times 10^3$
Coal - Ant.	-----	-----	$12.6 \times 10^3$	$800 \times 10^3$
Carbon	-----	-----	$14.6 \times 10^3$	$1.9 \times 10^6$
Ethylene	-----	-----	$20 \times 10^3$	1,477